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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,093	12/04/2001	Jeong-Min Moon	041501-5470	8028

9629 7590 10/28/2003

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WASHINGTON, DC 20004

EXAMINER

LEE, GUIYOUNG

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/000,093

Applicant(s)

MOON, JEONG-MIN

Examiner

Guiyoung Lee

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 18-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Receipt is acknowledged of the Amendment filed August 18, 2003.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1-5, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Winsor (USPT 5,914,560).

Re claims 1 and 23: Winsor discloses a flat type fluorescent lamp having first and second substrates (116 and 104 in Fig. 3A); a light-emitting layer (164) disposed between the first and second substrates; a plurality of supporters (183 in Fig. 3A) selectively arranged on the first substrate; and a light-scattering layer (186 in Fig. 3A) placed adjacent the plurality of supporters, wherein the light-scattering layer is spaced a distance from the first substrate (See Fig. 3A).

Re claim 2: Winsor discloses a reflecting portion adjacent a lower portion of the second substrate (202 in Fig. 9).

Re claims 3-4: Winsor discloses that the supporters are formed of a transparent material having characteristic for scattering light (col. 8, lines 45-48).

Re claim 5: Winsor discloses that the supporters are column-shaped having an upper and lower surface with a given surface area (See 183 in Fig. 3B).

Re claim 22: Winsor discloses that the supporters are formed separately from the first substrate (183 in Fig. 3A).

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winsor as applied to claim 1 above, and further in view of Ge et al. (USPT 5,859,508), Lowe (USPT 5,561,343) and Anderson et al. (USPT 5,811,927). The teachings of Winsor have been discussed above.

Re claims 6-17: Winsor does not disclose various types of supporters including a cylindrical shape, a polygonal shape, or a spherical shape as set forth in the claims 6-17. However, Lowe teaches a cylindrical-shaped supporter (Fig. 3A) and a polygonal-shaped supporter (Fig. 3B). Further, Anderson discloses that the upper surface of a supporter has a spherical shape (169 in Fig. 9). It would have been an obvious matter of design choice to employ various types of supporter as suggested by Ge, Lowe, and Anderson below, since applicant has not disclosed that such shapes of supporters solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with Winsor's supporter.

Re claim 6: Ge discloses that the surface area of the upper surface of the supporter is different than the surface area of the lower surface (502a in Fig. 6).

Art Unit: 2875

Re claims 7-9 and 13-14: Lowe discloses a cylindrical shaped supporter that the surface area of the upper surface is substantially equal to the surface area of the lower surface (Fig. 3A). Further, Lowe discloses a polygonal poles shaped supporter (Fig. 3B).

Re claims 10-11 and 16: Ge discloses a supporter that the lower surface is a cylindrical shape and that the upper surface is substantially curved (502 in Fig. 5a).

Re claims 12, 15, and 17: Anderson discloses a supporter having a spherical shaped upper surface (212 in Fig. 13).

#### ***Response to Arguments***

6. Upon further search and consideration, claims 1-17 and 22-23 are unpatentable over the newly found reference to USPT 5,914,560. New ground of rejection based on the newly found reference has been discussed above.

#### ***Allowable Subject Matter***

7. Claim 18-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose a cap disposed between the supporters and the light-scattering layer for preventing the supporters and the light-scattering means from being damaged from mechanical friction and pressure between the supporters and the light-scattering means.

Art Unit: 2875

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Guiyoung Lee** whose telephone number is (703) 308-8567. The examiner can normally be reached between the hours of 8:00 AM to 3:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone number for this Group is (703) 872-9306. The Right Fax phone number for the examiner is (703) 746-4766.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**Guiyoung.lee@uspto.gov**].


*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

GYL

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10/23/2003

  
Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800